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EXAMINER

BORLINGHAUS, JASON M

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,823

Applicant(s)

MOSHAL ET AL.

Examiner

Jason M. Borlinghaus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 2, 25 – 26 and 49 – 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Hauk (US Patent Pub. 2003/0126068).

Regarding Claims 1 and 25, Hauk discloses a system for effecting and monitoring a real-time process that is participated in by multiple participants over a network the system including multiple components, comprising:

- at least one participant computer (see 900, figure 9) with a display (see 912, figure 9);
- at least one server (see 930, figure 9) coupled to the at least one participant computer through the network (see 928, figure 9);
- at least one memory device (see 906, figure 9) having stored thereon instructions, which when executed by at least one of the components, causes the at least one component to:
- periodically collect real-time data (see 160, figure 1) regarding the real-time process. ("Or the packets may contain data from an

auction forum whose data is accessible from a web site or private network. In such a case, the coder/decoder may comprise software such as a web browsing application to acquire the necessary data." – see paragraph 0040);

- periodically update a display comprising a graphical representation of a current state of the process using the real-time data (see 160, figure 1). ("...a data interface coupled to the coder/decoder for displaying, receiving and transmitting data sent to and from the trading source." – see abstract – that the display would update periodically would be inherent in displaying real-time data from the trading source);
- receive participant inputs via the display (order input entry screen – see 850, figure 8), wherein the participant inputs include changes to the real-time data. ("...a data interface coupled to the coder/decoder for displaying, receiving and transmitting data sent to and from the trading source." – see abstract); and
- in respond to the participant inputs, update the display to reflect the changes to real-time data (see 160, figure 1). ("...a data interface coupled to the coder/decoder for displaying, receiving and transmitting data sent to and from the trading source." – see abstract – that the display would update periodically would be inherent in displaying real-time data from the trading source);

Regarding Claims 2 and 26, Hauk discloses a system, wherein the real-time process comprises a multi-participant process conducted over the network (“Also, in an embodiment, the trading source may be any computer system or computer network that generates real-time, data received from a central market place, such as the well-known NASDAQ, CBOT, CME, NYSE, EUREX markets, any other primary or secondary marketplace, any private auction network or auction web site, or any forum where buying and selling takes place.” – see paragraph 0035) and wherein periodically collecting real-time data comprises periodically polling the server from a network browser on one of the components to receive the real-time data. (“In an alternative embodiment, the coder/decoder can be a device that comprises a web browser or similar software that retrieves financial or other data, such as auction site data, from web sites or other networks.” – see paragraph 0042).

Regarding Claims 49 and 50, further method claims would have been obvious from system claims rejected above and are therefore rejected using the same art and rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 – 12, 14 – 15, 17, 18, 20 – 24, 27 – 36, 38, 39, 41 – 42, 44 – 48, 51 – 60, 62, 63, 65 - 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauk in view of Santoro (US Patent 6,724,403).

Regarding Claims 3 and 27, Hauk discloses a system, wherein the real-time process comprises:

- a multi-participant process conducted over the network wherein the real-time data includes current values of a plurality of variables (“In an embodiment, the coder/decoder receives digital data streams from the trading source comprising discrete packets of information. The packets may contain bid, offer and confirmed transaction results, in addition to other financial data provided by the trading source.” – see paragraph 0040), and wherein the system periodically collecting real-time data (“Or the packets may contain data from an auction forum whose data is accessible from a web site or private network. In such a case, the coder/decoder may

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comprise software such as a web browsing application to acquire the necessary data.” – see paragraph 0040).

Hauk does not teach:

- receiving a participant specification of a subset of the plurality of variables to be periodically collected at a first frequency; and
- receiving a participant specification of a second frequency at which the plurality of variables that does not include the subset is collected.

Santoro discloses a system wherein the system periodically collecting data comprises:

- receiving a participant specification of a subset of the plurality of variables to be periodically collected at a first frequency; and
- receiving a participant specification of a second frequency at which the plurality of variables that does not include the subset is collected. (“The present invention additionally includes an electronic readable memory to direct an electronic device to function in a specified manner, comprising: a first set of instructions to control simultaneous communication with a plurality of datastreams... a fourth set of instructions to retrieve data from said first datastream in accordance with a first retrieval rate and retrieve data from said second datastream in accordance with a second retrieval rate; and a fifth set of instructions to present data to said first tile in accordance with said first retrieval rate and present data to said

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second tile in accordance with said second retrieval rate.” – see col.

4, line 65 to col. 5, line 13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating participant specified data retrieval rates, as was done by Santoro, to enhance retrieval by specifying the most relevant subset of data to be retrieved from the data source.

Regarding Claims 4 and 28, Hauk does not teach a system, wherein the first frequency is approximately one collection per second, and the second frequency is a fraction of the first frequency.

Santoro discloses a system, wherein the first frequency is approximately one collection per second, and the second frequency is a fraction of the first frequency. (“A novel feature of the present invention is that the data content of any number of the programs can vary in real time and the rate at which the display of each is updated can be controlled by the user.” – see col. 7, lines 55 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have set any frequency as would have been desired.

Regarding Claims 5 and 29, Hauk discloses a system, wherein the real-time process comprises an Internet auction (“Also, in an embodiment, the trading source may be any computer system or computer network that generates real-time, data received from a central market place, such as the well-known NASDAQ, CBOT, CME, NYSE, EUREX markets, any other primary or secondary marketplace, any private auction network or auction web site, or any forum where

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buying and selling takes place." – see paragraph 0035), wherein the plurality of variables includes offer amounts ("The packets may contain bid, offer and confirmed transaction results, in addition to other financial data provided by the trading source." – see paragraph 0040), and wherein the subset includes highest offer amounts. ("The same best bid and best offer display format, where the best bid and offer metaphors are in the forefront, used in the virtual trading floor system may be incorporated." – see paragraph 0065 – establishing that Hauk can segregate the highest offer amounts from other financial data).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by assigning participant specified data retrieval rates, as was done by Santoro and established above, to enhance retrieval by specifying the most relevant subset of data to be retrieved from the data source.

Regarding Claims 6 and 30, Hauk discloses a system wherein periodically collecting real-time data comprises:

- monitoring a rate of change (net change – see 460, figure 4) of the real-time data collected at sequential periods.

Hauk does not teach a system wherein periodically collecting real-time data comprises:

- initially collecting real-time data at a first frequency;
- changing a frequency at which real-time data is collected based upon the rate of change such that a relatively high rate of change results in the frequency being higher than the first frequency, and a

relatively low rate of change results in the frequency being lower than the first frequency.

Santoro discloses a system wherein periodically collecting real-time data comprises:

- initially collecting real-time data at a first frequency;
- changing a frequency at which real-time data is collected. (“The present invention additionally includes an electronic readable memory to direct an electronic device to function in a specified manner, comprising: a first set of instructions to control simultaneous communication with a plurality of datastreams... a fourth set of instructions to retrieve data from said first datastream in accordance with a first retrieval rate and retrieve data from said second datastream in accordance with a second retrieval rate; and a fifth set of instructions to present data to said first tile in accordance with said first retrieval rate and present data to said second tile in accordance with said second retrieval rate.” – see col. 4, line 65 to col. 5, line 13). (“A novel feature of the present invention is that the data content of any number of the programs can vary in real time and the rate at which the display of each is updated can be controlled by the user.” – see col. 7, lines 55 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating different data retrieval rates, as was done by Santoro, to Hauk’s monitoring of the rate of

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change to enhance retrieval by specifying the most relevant subset of data to be retrieved from data source, the subset that is changing the most rapidly.

Regarding Claims 7 and 31, Hauk does not teach a system, wherein periodically collecting real-time data further comprises receiving participant-input upper and lower limits on the frequency.

Santoro discloses a system, wherein periodically collecting real-time data further comprises receiving participant-input upper and lower limits on the frequency. ("A novel feature of the present invention is that the data content of any number of the programs can vary in real time and the rate at which the display of each is updated can be controlled by the user." – see col. 7, lines 55 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating participant-defined limits on data retrieval rates, as was done by Santoro, to enhance retrieval by specifying the most efficient retrieval rate for the particular system.

Regarding Claims 8 and 32, Hauk does not teach a system, wherein the display comprises template-generated hypertext markup language (HTML pages), and wherein the real-time data is conveyed in Java.

Santoro discloses a system, wherein the display comprises template-generated hypertext markup language (HTML pages), and wherein the real-time data is conveyed in Java. ("In one embodiment of the present invention, the grid is a document created in a markup language such as HTML, SGML or XML, and is therefore suitable for display via a web-browser... For example, "dynamic

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HTML", java applets or simple CGI-scripts could provide the technological basis for enabling various grid utilities." – see col. 13, line 32 – 42).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating HTML and java computer languages, as was done by Santoro, to enhance the usability of the system over the Internet.

Regarding Claims 9 and 33, Hauk discloses a system, wherein the real-time process comprises an Internet multi-participant auction, ("Also, in an embodiment, the trading source may be any computer system or computer network that generates real-time, data received from a central market place, such as the well-known NASDAQ, CBOT, CME, NYSE, EUREX markets, any other primary or secondary marketplace, any private auction network or auction web site, or any forum where buying and selling takes place." – see paragraph 0035) and wherein the real-time data comprises bid amounts and ask amounts ("The packets may contain bid, offer and confirmed transaction results, in addition to other financial data provided by the trading source." – see paragraph 0040).

Regarding Claims 10 and 34, Hauk discloses a system, wherein the display comprises a plurality of objects (metaphors), each of which represent a participant in the auction ("Buying and selling trader metaphors represent participants in a real or imagined environment, such as a financial market, gaming or training environment." – see paragraph 0044), wherein number on the object indicates a relative number of items held by a seller and a relative number of items desired by a buyer ("The price and quantity associated with each actual

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trader may be displayed on the respective chests of the metaphors.” – see paragraph 0049), and wherein the real-time data includes the relative number of items held by the seller and the relative number of items desired by the buyer. (“The packets may contain bid, offer and confirmed transaction results, in addition to other financial data provided by the trading source.” – see paragraph 0040).

Neither Hauk nor Santoro explicitly disclose a system, wherein the number of items held by a seller or the number of items desired by a buyer is indicated by the relative size of the object. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have communicated this information in any format as would have been desired.

Regarding Claims 11 and 35, Hauk discloses a system, wherein the plurality of objects (metaphors) comprise buyer objects and seller objects, wherein a relative distance of a buyer object from a seller object represents a relative closeness of an asking price associated with the seller object to an offer price associated with the buyer object, and wherein the real-time data includes the relative closeness of the asking price associated with the seller object to the offer price associated with the buyer object. (“The actual trader having the best bid would be represented by the buying trader metaphor in the front row. This way, a trader utilizing computer system will be able to promptly recognize which trader has the best bid. Immediately behind buying trader metaphor is buying trader metaphor representing the second best bid. Next to buying trader metaphor would be buying trader metaphor representing the third best bid, and

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so on. Other trader metaphors are displayed immediately behind the best bid trader, buying trader metaphor in this case, and fan out behind buying trader metaphor in a descending order that represents the depth of the bids in that particular market.” – see paragraph 0046).

Regarding Claims 12 and 36, Hauk discloses a system, wherein the display is approximately circular (radial), and wherein the display includes concentric grid lines that represent a degree to which a buyer proposal is met by a seller such that the location of objects relative to the concentric grid lines indicate a quantification of an offer's progress (see figure 2).

Regarding Claims 14 and 38, Hauk discloses a system, wherein different colors are used on different objects to convey information about the objects, including:

- whether an object is a seller object or a buyer object (“In an embodiment, the buying trader metaphors are represented in green trading jackets.” – see paragraph 0046). (“In an embodiment, all of the offering or selling traders are represented in red trading jackets.” – see paragraph 0047);
- whether an object is associated with an ask or a bid (“In an embodiment, the buying trader metaphors are represented in green trading jackets.” – see paragraph 0046). (“In an embodiment, all of the offering or selling traders are represented in red trading jackets.” – see paragraph 0047); and

- whether a transaction is a consummated transaction. ("Visual color changes may highlight an opposing trader with the best bid or offer, or the player's badge might light up to help confirm trading action." – see paragraph 0068).

Hauk also discloses a system to convey whether an object represents a recently updated offer. ("The best bid and offer among the opposing traders could be highlighted by having the buying trader metaphors and selling trader metaphors "pop up" throughout the crowd as prices change and the best bids and offers become represented by other opposing trader metaphors." – see paragraph 0064). While neither Hauk nor Santoro explicitly teach a color to convey whether an object represents a recently updated offer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have communicated this information in any format as would have been desired.

Regarding Claims 15 and 39, Hauk discloses a system, wherein different sounds are used to convey information including the consummation of a transaction, and an appearance of a new offer. ("Additionally, a trader at computer system can determine the desired level of visual and audio activity via the avatar interface. The avatar interface provides a multimedia representation of the real time data interpreted and processed by the coder/decoder." – see paragraph 0050).

Regarding Claims 17 and 41, Hauk discloses a system, wherein receiving participant inputs includes the participant manipulating the display,

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wherein manipulating the display, and wherein the server is sent updated information reflecting the participant input. ("The direction of the order, whether it is a buy or sell, would also be entered. In alternative embodiments, these options can also be selected by touching the order entry input screen display or by other means including but not limited to selection via a mouse, a keyboard, a virtual reality glove or mitt, voice activation or a control console. As orders are made, the instructions of the trader will be sent immediately to the central marketplace by way of the data interface through the coder/decoder to the trading source." – see paragraph 0061). ("Through virtual reality hardware, the participant would enter the trading forum and be able to interact within a market with opposing traders...In the virtual reality trading floor system, orders would be initiated from the control interface, and made by, but not limited to, gestures and voice and/or keyboard, keypad or touch pad, and confirmed through the data interface." – see paragraph 0066).

While neither Hauk nor Santoro explicitly teach a system, wherein manipulating the display comprises the participant selecting and moving an object on the display, Hauk does disclose manipulating the display through "a mouse, a keyboard, a virtual reality glove or mitt, voice activation or a control console." It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for participant inputs to be entered in any manner as would have been desired.

Regarding Claims 18 and 42, Hauk discloses a system, further comprising a cursor that is manipulable on the display by the participant, wherein

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the instructions, when executed, further cause the operating system to display information about an object when the cursor is moved over the object. ("The price and quantities can also, at a trader's discretion, be made known verbally by the trader metaphors. In one embodiment, the trader metaphors could speak the prices and quantities in response to a trader moving across a display of computer system, and ultimately across the desired trader metaphor, with a cursor or simply touching the screen in a touch-screen implementation." – see paragraph 0049). ("Through virtual reality hardware, the participant would enter the trading forum and be able to interact within a market with opposing traders...In the virtual reality trading floor system, orders would be initiated from the control interface, and made by, but not limited to, gestures and voice and/or keyboard, keypad or touch pad, and confirmed through the data interface." – see paragraph 0066).

While neither Hauk nor Santoro teaches a system, wherein the operating system displays information about an object when the cursor is moved over the object, Hauk does disclose the object verbalizing information when the cursor is moved over the object. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have communicated this information in any format as would have been desired.

Regarding Claims 20 and 44, Hauk discloses a system, wherein manipulating the display further comprises the participant placing an offer on the display and removing an offer from the display (see figure 6). ("The direction of the order, whether it is a buy or sell, would also be entered. In alternative embodiments, these options can also be selected by touching the order entry

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input screen display or by other means including but not limited to selection via a mouse, a keyboard, a virtual reality glove or mitt, voice activation or a control console. As orders are made, the instructions of the trader will be sent immediately to the central marketplace by way of the data interface through the coder/decoder to the trading source.” – see paragraph 0061). (“Through virtual reality hardware, the participant would enter the trading forum and be able to interact within a market with opposing traders...In the virtual reality trading floor system, orders would be initiated from the control interface, and made by, but not limited to, gestures and voice and/or keyboard, keypad or touch pad, and confirmed through the data interface.” – see paragraph 0066).

While neither Hauk nor Santoro explicitly teach a system, wherein placing an object representing an offer on the display and removing an object representing an offer from the display, Hauk does disclose manipulating the display through “a mouse, a keyboard, a virtual reality glove or mitt, voice activation or a control console.” It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for participant inputs to be entered in any manner as would have been desired.

Regarding Claims 21 and 45, Hauk discloses a system, wherein manipulating the display further comprises the participant indicating consummation of a transaction (see figure 6). (“The direction of the order, whether it is a buy or sell, would also be entered. In alternative embodiments, these options can also be selected by touching the order entry input screen display or by other means including but not limited to selection via a mouse, a

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keyboard, a virtual reality glove or mitt, voice activation or a control console. As orders are made, the instructions of the trader will be sent immediately to the central marketplace by way of the data interface through the coder/decoder to the trading source.” – see paragraph 0061). (“Through virtual reality hardware, the participant would enter the trading forum and be able to interact within a market with opposing traders...In the virtual reality trading floor system, orders would be initiated from the control interface, and made by, but not limited to, gestures and voice and/or keyboard, keypad or touch pad, and confirmed through the data interface.” – see paragraph 0066).

While neither Hauk nor Santoro explicitly teach a system, wherein the participant moving an object representing an offer to a center of the display for consummation of a transaction, Hauk does disclose manipulating the display through “a mouse, a keyboard, a virtual reality glove or mitt, voice activation or a control console.” It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for participant inputs to be entered in any manner as would have been desired.

Regarding Claims 22 and 46, Hauk discloses a system, wherein the display further comprises a graphical indication of an offer price (see 440, figure 4) that is separate from the display (figure 5) and a graphical offer to confirm the transaction (see 462, figure 4) that is separate from the display (see figure 5).

Regarding Claims 23 and 47, Hauk discloses a system, wherein the display is approximately circular, and wherein a participant displays information about an object by selecting the object on the display. (“The price and quantities

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can also, at a trader's discretion, be made known verbally by the trader metaphors. In one embodiment, the trader metaphors could speak the prices and quantities in response to a trader moving across a display of computer system, and ultimately across the desired trader metaphor, with a cursor or simply touching the screen in a touch-screen implementation." – see paragraph 0049).

Hauk does not teach a system, wherein a participant displays information about multiple objects by manipulating a circle of varying circumference on the display such that information regarding objects that are inside the circle are displayed.

While Santoro does not explicitly disclose a system, wherein a participant can group objects by manipulating a circle of varying circumference on the display, Santoro does disclose grouping objects (datastreams). ("If desired, a user can impose a "theme" on a grid and thereby categorize, group, and/or otherwise manage his data sources." – see col. 11, lines 54-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for participant to group objects in any manner as would have been desired.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating the ability to group objects, as was done by Santoro, to enhance retrieval of object information.

Regarding Claims 24 and 48, Hauk discloses a system, wherein objects (metaphors) comprise multiple offers, and each offer represents a designated

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dollar amount ("The price and quantity associated with each actual trader may be displayed on the respective chests of the metaphors." – see paragraph 0049).

Hauk does not teach a system, wherein in multiple objects comprise multiple offers, and wherein the information regarding objects that are inside the circle includes a number of offers inside the circle and a dollar amount representing all of the offers inside the circle.

While Santoro does not explicitly disclose a system, wherein a participant can group objects by manipulating a circle of varying circumference on the display, Santoro does disclose grouping objects (datastreams). ("If desired, a user can impose a "theme" on a grid and thereby categorize, group, and/or otherwise manage his data sources." – see col. 11, lines 54-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have allowed for participant to group objects in any manner as would have been desired.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk by incorporating the ability to group objects, as was done by Santoro, and to obtain the composite offer price among the group to enhance retrieval of information about a group of offers when user was selling multiple units in the marketplace.

Regarding Claims 51 – 60, 62 – 63 and 65 - 70, further method claims would have been obvious from system claims rejected above and are therefore rejected using the same art and rationale.

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Claims 13, 37 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauk in view of Santoro, as applied to Claims 12, 36 and 60 above, and further in view of Wong (US Patent 6,708,172).

Regarding Claims 13 and 37, neither Hauk nor Santoro disclose a system, wherein the relative distance is produced by parametric weighting and displayed on a logarithmic scale such that changes in the auction are accelerated with proximity to the center of the circle. However, it has been previously established in rejecting Claims 3 – 5 and Claims 27 – 29 that highest offer amounts are updated at a higher frequency than lower offer amounts. Furthermore, it has been established in rejecting Claims 11 – 12 and Claims 35 - 36 that objects (metaphors) closer to the center of the circle are the higher offer amounts. Therefore, the objects are updated at an accelerated rate with increased proximity to the center of the circle based upon their higher offer amounts.

Wong discloses a system ("In addition, proxies may represent a system user at real-time events in a multi-user environment, for example, online auctions" – see col. 12, line 32 – 35), wherein the relative distance (between proxies) is displayed on a logarithmic scale. ("As shown in FIG. 7A, the landscape space is divided into sections at regular intervals (for example, a fixed-size grid along the lines of the cells that make up the smallest landscape sheet unit may be used for this purpose as well; but the space can also be divided into any interval that can be computed predictably, for example, a logarithmic scale may be used for this purpose)." – see col. 21, lines 35 – 42).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hauk and Santoro, by incorporating a logarithmic scale into the object (proxy) display, as was done by Wong, to better define the proximity of bids and offers to desired bid and offer located at the center of the display.

Regarding Claim 61, further method claim would have been obvious from system claim rejected above and are therefore rejected using the same art and rationale.

Claims 16, 19, 40, 43 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauk in view of Santoro, as applied to Claims 11, 18, 35 and 59 above, and further in view of Silverman (US Patent 5,136,501).

Regarding Claims 16 and 40, Hauk discloses a system, wherein the display is approximately circular, and wherein objects have a radial position. (see figure 2).

Hauk does not teach that the radial position of an object on the display conveys information about the object, including a time at which a participant entered the auction and length of time the participant has been in the auction.

Silverman discloses teach that the position of an object (offer or bid) on the display conveys information about the object, including a time at which a participant (bid or offer) entered the auction (placed the bid or offer) and length of time the participant has been in the auction. ("In addition the time order of bids and offers goes from left to right with, on the bid side, the last bid being left most and the first bid being right most, whereas on the offer side, the first offer is left

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most and the last offer is right most.” – see col. 9, line 65 – col. 10, line 1).

(“Preferably each bid and offer is identified with a token to give it a unique handle by which it can be referred to in future transactions and is time-stamped based on entry into the system.” – see col. 10, lines 33 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the radial display of Hauk by incorporating references to time, as was done by Silverman, to provide another auction metric to the system's user.

Regarding Claim 64, further method claim would have been obvious from system claim rejected above and are therefore rejected using the same art and rationale.

Regarding Claims 19 and 43, Hauk discloses a system, wherein the information includes quantity, price, (“The price and quantity associated with each actual trader may be displayed on the respective chests of the metaphors.” – see paragraph 0049), and an amount by which an offer changed since the offer first appeared on the display (net change – see 460, figure 4).

Neither Hauk nor Santoro teach a system, wherein the information includes length of time an offer has been available.

Silverman discloses a system, wherein the information includes length of time an offer has been available. (“In addition the time order of bids and offers goes from left to right with, on the bid side, the last bid being left most and the first bid being right most, whereas on the offer side, the first offer is left most and the last offer is right most.” – see col. 9, line 65 – col. 10, line 1). (“Preferably

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each bid and offer is identified with a token to give it a unique handle by which it can be referred to in future transactions and is time-stamped based on entry into the system.” – see col. 10, lines 33 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the information obtained through Hauk by incorporating references to time, as was done by Silverman, to provide another auction metric to the system's user.

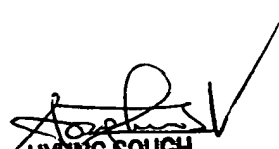
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (703) 308-9552. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (703) 308-0505. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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